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DEC 05 2002
GROUP 3600

AMENDMENT

Please replace the claims with the following:

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1 1. (Twice Amended) A method for providing concurrency control for a
2 policy-based management system that controls resources in a distributed
3 computing system, the method comprising:
4 receiving a request to perform an operation on a lockable resource from a
5 controller in the distributed computing system, wherein the lockable resource
6 presents one or more independent locks providing access to independent sub-units
7 of the resource and wherein the one or more independent locks allow multiple
8 controllers to lock independent sub-units of the lockable resource independently;
9 wherein the controller sends the request in order to enforce a first policy
10 for controlling resources in the distributed computing system;
11 determining whether the controller holds a lock on the lockable resource;
12 allowing the controller to execute the operation on the lockable resource if
13 the controller holds the lock on the lockable resource;
14 allowing the controller to acquire the lock if the controller does not hold
15 the lock on the lockable resource; and
16 allowing the controller to execute the operation on the lockable resource if
17 the controller acquires the lock.

1 2. (Unchanged) The method of claim 1, wherein the first policy is
2 configured to command resources in the distributed computing system to perform
3 actions so that the distributed computing system operates in accordance with a
4 rule that is enforced by the first policy, wherein the rule governs behavior of
5 resources within the distributed computing system.

1 3. (Unchanged) The method of claim 1, further comprising throwing an
2 exception if the controller does not hold the lock on the lockable resource and if
3 the controller does not acquire the lock.

1 4. (Unchanged) The method of claim 1, wherein the lock held on the
2 lockable resource expires after a pre-specified lease period, unless the lease is
3 renewed within the pre-specified lease period.

1 5. (Unchanged) The method of claim 1, wherein the lockable resource
2 includes a resource within the distributed computing system.

1 6. (Unchanged) The method of claim 1, wherein the lockable resource
2 includes a second policy for controlling resources in the distributed computing
3 system.

1 7. (Unchanged) The method of claim 1, wherein the controller includes a
2 client in the distributed computing system.

1 8. (Unchanged) The method of claim 1, wherein the controller includes the
2 first policy for controlling resources in the distributed computing system.

1 9. (Unchanged) The method of claim 1, wherein the controller includes a
2 higher-level policy for controlling resources in the distributed computing system,
3 and wherein the lockable resource includes a lower-level policy for controlling
4 resources in the distributed computing system.

1 10. (Unchanged) The method of claim 1, wherein allowing the controller
2 to acquire the lock includes allowing the controller to acquire the lock from a
3 resource that allocates locks to controllers.

Claim 11 was previously cancelled without prejudice.

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1 12. (Twice Amended) A computer-readable storage medium storing
2 instructions that when executed by a computer cause the computer to perform a
3 method for providing concurrency control for a policy-based management system
4 that controls resources in a distributed computing system, the method comprising:
5 receiving a request to perform an operation on a lockable resource from a
6 controller in the distributed computing system, wherein the lockable resource
7 presents one or more independent locks providing access to independent sub-units
8 of the resource and wherein the one or more independent locks allow multiple
9 controllers to lock independent sub-units of the lockable resource independently;
10 wherein the controller sends the request in order to enforce a first policy
11 for controlling resources in the distributed computing system;
12 determining whether the controller holds a lock on the lockable resource;
13 allowing the controller to execute the operation on the lockable resource if
14 the controller holds the lock on the lockable resource;
15 allowing the controller to acquire the lock if the controller does not hold
16 the lock on the lockable resource; and
17 allowing the controller to execute the operation on the lockable resource if
18 the controller acquires the lock.

1 13. (Unchanged) The computer-readable storage medium of claim 12,
2 wherein the first policy is configured to command resources in the distributed
3 computing system to perform actions so that the distributed computing system

4 operates in accordance with a rule that is enforced by the first policy, wherein the
5 rule governs behavior of resources within the distributed computing system.

1 14. (Unchanged) The computer-readable storage medium of claim 12,
2 wherein the method further comprises throwing an exception if the controller does
3 not hold the lock on the lockable resource and if the controller does not acquire
4 the lock.

1 15. (Unchanged) The computer-readable storage medium of claim 12,
2 wherein locks held by the controller expire after a pre-specified lease period,
3 unless the lease is renewed within the pre-specified lease period.

1 16. (Twice Amended) An apparatus that provides concurrency control
2 within a policy-based management system that controls resources in a distributed
3 computing system, the apparatus comprising:

4 a receiving mechanism that receives a request to perform an operation on a
5 lockable resource from a controller in the distributed computing system, wherein
6 the lockable resource presents one or more independent locks providing access to
7 independent sub-units of the resource and wherein the one or more independent
8 locks allow multiple controllers to lock independent sub-units of the lockable
9 resource independently;

10 wherein the controller sends the request in order to enforce a first policy
11 for controlling resources in the distributed computing system;

12 a determining mechanism that determines whether the controller holds a
13 lock on the lockable resource;

14 an execution mechanism that is configured to,

15 allow the controller to acquire the lock if the controller
16 does not hold the lock on the lockable resource, and to

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17
18 allow the controller to execute the operation on the lockable
resource if the controller holds the lock on the lockable resource.

1 17. (Unchanged) The apparatus of claim 16, wherein the first policy is
2 configured to command resources in the distributed computing system to perform
3 actions so that the distributed computing system operates in accordance with a
4 rule that is enforced by the first policy, wherein the rule governs behavior of
5 resources within the distributed computing system.

1 18. (Unchanged) The apparatus of claim 16, wherein the execution
2 mechanism is configured to throw an exception if the controller does not hold the
3 lock on the lockable resource and if the controller does not acquire the lock.

1 19. (Unchanged) The apparatus of claim 16, wherein the lock on the
2 lockable resource expires after a pre-specified lease period, unless the lease is
3 renewed within the pre-specified lease period.

1 20. (Unchanged) The apparatus of claim 16, wherein the lockable resource
2 includes a resource within the distributed computing system.

1 21. (Unchanged) The apparatus of claim 16, wherein the lockable resource
2 includes a second policy for controlling resources in the distributed computing
3 system.

1 22. (Unchanged) The apparatus of claim 16, wherein the controller
2 includes a client in the distributed computing system.

1 23. (Unchanged) The apparatus of claim 16, wherein the controller
2 includes the first policy for controlling resources in the distributed computing
3 system.

1 24. (Unchanged) The apparatus of claim 16, wherein the controller
2 includes a higher-level policy for controlling resources in the distributed
3 computing system, and wherein the lockable resource includes a lower-level
4 policy for controlling resources in the distributed computing system.

1 25. (Unchanged) The apparatus of claim 16, wherein the execution
2 mechanism is configured to allow the controller to acquire the lock from a
3 resource that allocates locks to controllers.

Claim 26 was previously cancelled without prejudice.